

LNG Access Policy and California

Paul Carpenter

The Brattle Group

California Resources Agency Workshop on LNG

1 June 2005

Contents

- ③ Objectives for LNG regulatory policy
- ③ Open access to LNG terminals vs. “security of supply”
- ③ The Europeans
- ③ Observations on the current structure of California’s gas market and LNG access policy

Objectives

Any regulatory policy toward LNG should:

- ☐ Seek to promote gas-on-gas competition**
- ☐ Permit economic LNG projects to be built at efficient scale (assuming environmental, safety and other hurdles are surmounted)**
- ☐ Not discriminate between rival projects (including non-LNG supply sources)**

TPA vs. Security of supply

The issue of whether third-party access (TPA) policies should be applied to LNG terminals is often expressed as a trade-off:

- ☐ TPA promotes gas-on-gas competition by giving LNG suppliers and buyers additional choice (including spot deliveries and purchases), *but...*
- ☐ TPA may increase the risk associated with terminal projects, thus threatening security of supply by making terminal projects harder to finance/develop

Features of LNG Terminal Projects

Like pipelines...

- ❏ once the terminal is built, the investment is sunk and difficult to move or redeploy in another use;
- ❏ efficient scale for a terminal is not unlike a large interstate pipeline (600-1500 MMcf/day);
- ❏ long-term contracts for use of the facility are frequently important to underpin the terminal investment and to obtain project financing;
- ❏ environmental and safety issues are present (perhaps more so with LNG?);
- ❏ A key difference: if located close to market (and if the interconnecting infrastructure permits), LNG terminals may offer flexibility benefits in the form of storage/peak delivery.

LNG Terminals as Pipeline Projects

Query: Should we apply the same access regulations to LNG terminals as we do to new interstate pipelines?

“No”: Economic terminals at efficient scale may not be built, and our future supply will be less secure.

“Yes”: There are very good reasons for the access regulations that we apply to pipelines (e.g., prevent market power abuse) and these rules have not obviously prevented the construction of new, economic pipelines.

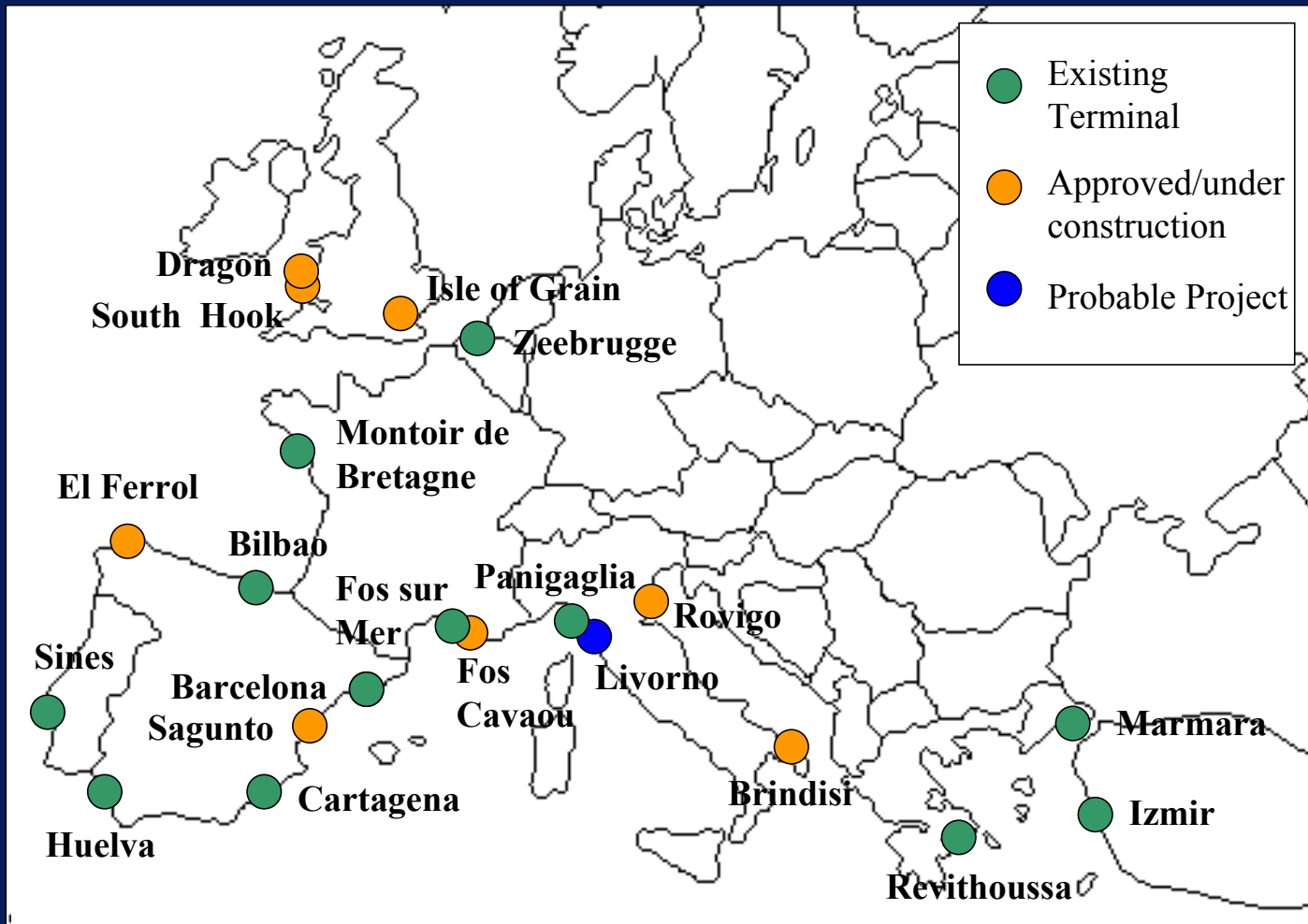
FERC Policy on LNG Access

- **FERC has carved out an exception for LNG terminals (*Hackberry LNG* decision, 101 FERC 61,294)**
 - ▢ **Based on a security of supply argument and perceived need to boost investments in LNG terminals**
 - ▢ **Hackberry a new entrant, so no competitive issues**
 - ▢ **Specific findings regarding lack of market power by the facility in the market for regional gas supply**
- **Policy has been protested in application for Cove Point, MD terminal expansion**

The European Gas Directive

- **The EU has been implementing policies to create Europe-wide, competitive markets for natural gas and electric power**
 - ❏ **Concerns over security of supply, and**
 - ❏ **Competitive positions of the incumbent firms**
- **EU Gas Directive (1998) requires member state regulators to apply regulated TPA principles to pipelines and LNG terminals with oversight by European Commission**
- **Exemptions may be granted if certain conditions are met**

European LNG Terminals



Sources: www.enchantedlearning.com, GTE, TBG

EU TPA Exemption Conditions

- ③ **Project risk is such that “the investment would not take place unless an exemption was granted”**
- ③ **The exemption must enhance competition**
- ③ **Must enhance security of supply**
- ③ **No harm to the “regulated system to which the infrastructure is connected.”**

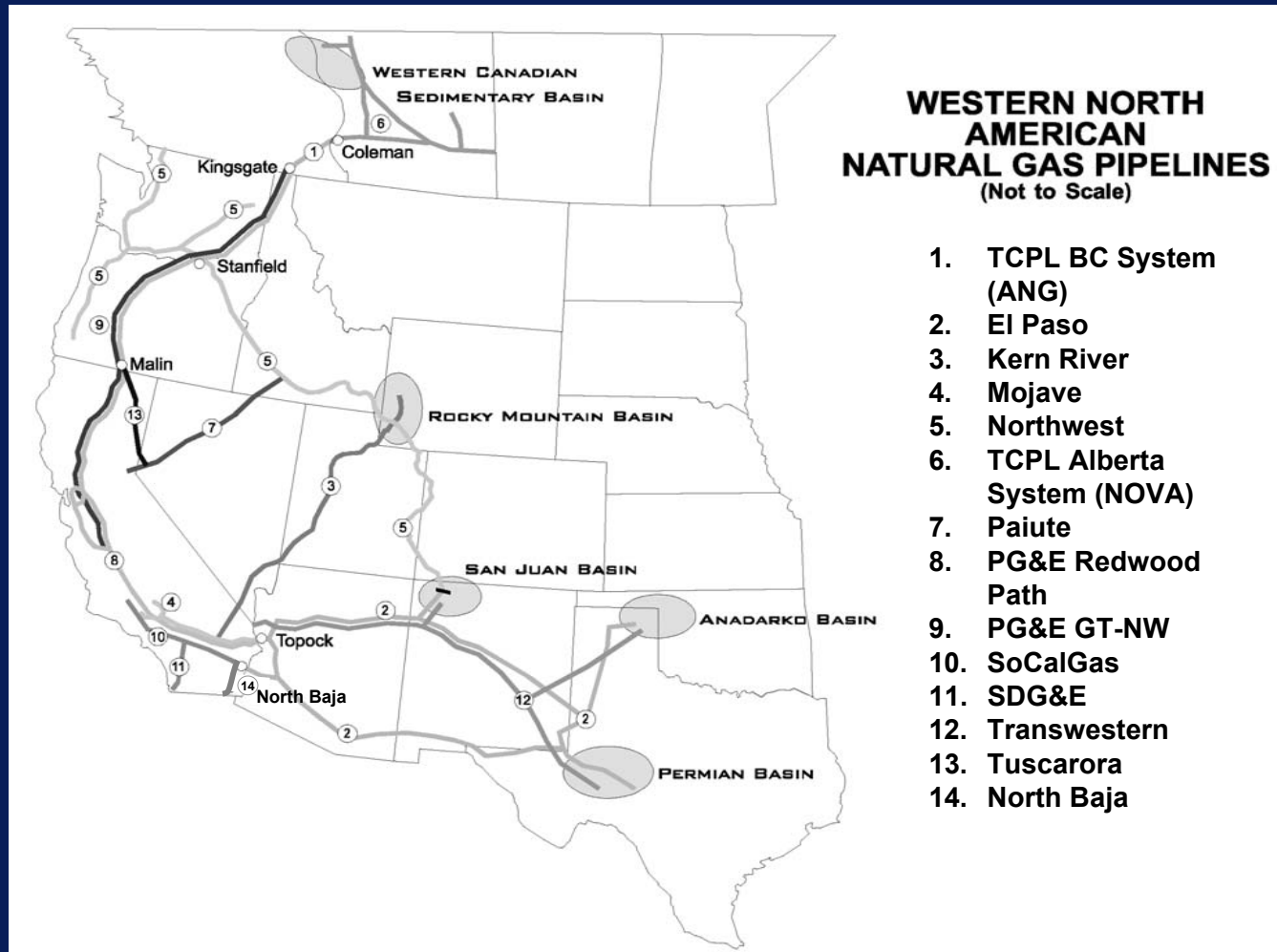
UK LNG Terminal Exemptions

- UK regulator OFGEM has already granted exemptions for three proposed LNG terminals. But the exemptions are not unconditional:
 - ❏ Require terminal operators to employ anti-hoarding, “use-it-or-lose-it” (UIOLI) provisions in contracts with users
 - ❏ Capacity allocation through “open seasons” preferred
 - ❏ Information disclosure to the regulator; EBB’s to encourage interruptible use and secondary market
 - ❏ Ring-fencing if terminal operator is affiliated with downstream entity (such as pipeline operator)
 - ❏ Exemption can be removed if regulator finds exercise of market power

Other EU Countries

- Italy and France have required LNG terminals to set aside a certain amount of capacity for third party use (Italy 20%, France 10%, Spain 75/25% LT/ST)
- Spain's LNG terminals are subject to strict regulated tariffs (“postage stamp”) with strong overlay of government central planning – reflecting serious concerns over security of supply

California's Gas Supply Sources



Natural Gas Supplies to California

- ③ Diversified conventional supply sources (2003)
 - 🗄 In-state CA 18%
 - 🗄 Canada 26%
 - 🗄 Rockies 14%
 - 🗄 Southwest 42% (price-setting source of supply)
- ③ Dependent on in-state storage to meet peak demands
- ③ Liquid trading at S. California border and PG&E “city-gate”, but no futures market ala NYMEX

Importance of Gas Price to Electricity Price in California

- **Natural gas is critical to the generation of electricity in California**
 - ❏ **Gas-fired generation is about 60% of installed capacity, but is “on the margin” most of the time and nearly always during peak periods**
 - ❏ **Thus, gas price increases translate directly into electricity prices**
 - ❏ **Bulk of projected gas demand growth in California is in the power generation sector – particularly S. California**

LNG and California

- Should California worry about security of supply?
 - ❏ Already have diversified access to N. American gas fields (including Canada/Alaska)
 - ❏ While more diversification is undoubtedly good, LNG terminals located in the west are unlikely to significantly affect future gas prices relative to other regions of the U.S. (unless significant excess capacity is built)
 - ❏ California's natural gas price has been disconnected from the N. American price in the past due to pipeline and storage constraints and anticompetitive conduct (e.g. 2000-2001 energy crisis)

LNG and California

- **Southern California has an additional issue that affects LNG access:**
 - ❏ **There is substantially more import pipeline capacity to the SoCalGas system than it is designed to accept (6.1 vs 3.9 Bcf/d)**
 - ❏ **Access to firm transmission capacity on SoCal system not yet possible**
 - ❏ **SoCalGas has no incentive to expand total receipt point capacity**
 - ❏ **Makes it difficult for a new LNG entrant to find anchor buyers for project supply (e.g., electricity generators)**


LNG Access and Market Power

Should TPA policies be applied to LNG terminals in California?

 **Open seasons?**

 **UIOLI requirements, anti-hoarding provisions?**

 **Require EBB's and secondary trading facilitation?**

 **Exempt on the grounds that the terminals would not be built otherwise?**

LNG Access and Market Power

- **Lessons from the 2000/2001 energy crisis:**

- ❏ **Control of the last 500-1,000 MMcf/d of gas import capacity can confer market power on the holder under certain market conditions**

- ❏ **If gas import and/or storage capacity is withheld from the market, gas and thus electricity prices can spike**

LNG Access and Market Power

- **Suggests that anti-hoarding provisions are important, just as in Europe**
- **Open seasons to gauge need for and quantity of LNG capacity important, but not clear that the signal will be the right one without first fixing access issues to the intrastate transmission system**